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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,963	09/07/2005	Daniel Lecomte	BDM-05-1207	2056
35811 7590 11/14/2008 IP GROUP OF DLA PIPER US LLP ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103				
EXAMINER				
SAINT CYR, JEAN D				
ART UNIT		PAPER NUMBER		
2425				
MAIL DATE		DELIVERY MODE		
11/14/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/542,963

**Applicant(s)**

LECOMTE ET AL.

**Examiner**

JEAN D. SAINT CYR

**Art Unit**

2425

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☐ Claim(s) 48, 49 and 51-92 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 48, 49 and 51-92 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01/23/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 41, 48, 91, 92 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 20 and 21 of copending Application No. 10/11091217. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 47, 48, 91 and 92 are obvious variants and encompassed by claims 1, 2, 20 and 21 of the application' 217'. For example, the applicant only changed "a digital profile of the recipient" from the

co-pending application and replaced it by "a digital profile of an addressee user" in the current application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

#### **Response to Amendment**

This action is in response to applicant's amendment filed on 08/01/2008. Claim 48-49, 51-92 are still pending in the current application. Claim 50 was cancelled. **This action is made FINAL.**

#### **Response to Arguments**

Applicant's arguments were fully considered. Applicant argues that LeBourgeois did not disclose an original stream in a nominal compressed format based on wavelet compression.

However, Shin et al shows on fig.2 that the original signal is first compressed using the wavelet transform and the wavelet coefficient was modified and the original image was restored after decompression and inverse discrete wavelet transform. As a result, this action is made final.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 47-50 55-58, 60-62, 79-92 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Shin in view of LeBourgeois(wo/98/42098).

Re claim 47, Shin et al disclose a process for secured distribution of digital fixed

pictures in an original stream comprising sequences of data each containing a part of information of the picture (see fig.2, host image to be transmitted); the original stream being in a nominal compressed format based on wavelet and comprising wavelet coefficient (see fig.2, element 202), the process comprising

modifying the original stream by modifying the wavelet coefficient to produce a stream modified in the same nominal format as the original stream (see fig.2, replaced MXM wavelet coefficient),

transmitting the modified stream (see fig.2, transmission channel)

constructing a reconstructed stream (see fig.2, restored host image) from the modified stream with a decoder in addressee equipment (The compressed bitstreams output from the encoding unit 20 and transmitted via the transmission channel are decoded by the decoding unit 22 as follows, col.6, lines 4-9).

But Shin did not explicitly disclose wherein the construction is adaptive and progressive as a function of information coming from a digital profile of an addressee user.

However, LeBourgeois et al disclose the full encrypted product is sent, along with the payment information and usage parameter according to the user, Page 28.

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Shin with the invention of LeBourgeois for the purpose of allowing the system to restore the original image with respect to information associated with the user.

Re claim 48, Shin et al did not explicitly disclose wherein modification produces a modified main stream and complementary information permitting reconstruction of the

original stream by a decoder, and transmitting the modified stream also comprises transmitting to the addressee equipment a subset of the complementary information, which subset is determined as a function of information coming from a digital profile of the addressee.

However, LeBourgeois et al disclose wherein modification produces a modified main stream and complementary information (included but not limited to, see page 18, product decryption key is referred to herein as being complementary to key used for product encryption in step 410) permitting reconstruction of the original stream by a decoder, and transmitting the modified stream also comprises transmitting to the addressee equipment a subset of the complementary information, which subset is determined as a function of information coming from a digital profile of the addressee (included but not limited to, page 28, the full encrypted product is sent, along with the payment information and usage parameter according to the user).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Shin with the invention of LeBourgeois for the purpose of allowing the system to restore the original image with respect to information associated with the user.

Re claim 49, Shin et al did not explicitly disclose wherein modification produces modified main stream and complementary information permitting reconstruction of the original stream by a decoder, and transmitting the modified stream also comprises transmitting to the addressee equipment a subset of the complementary information, which subset is determined as a function of information coming from a hardware profile) of the addressee

However, LeBourgeois et al disclose wherein modification produces modified main stream and complementary information permitting reconstruction of the original stream by a decoder, and transmitting the modified stream (included but not limited to,

see fig.4, step 428, transmit broadcast package via internet ) also comprises transmitting to the addressee equipment a subset of the complementary information, which subset is determined as a function of information coming from a hardware profile of the addressee (see page 21, customer's installation ID ).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Shin with the invention of LeBourgeois for the purpose of allowing the system to restore the original image with respect to information associated with the equipment of the user.

Re claim 55, Shin et al did not explicitly disclose wherein the modified main stream is available on the addressee equipment prior to transmitting the complementary information to the addressee equipment.

However, LeBourgeois et al disclose wherein the modified main stream is available on the addressee equipment prior to transmitting the complementary information to the addressee equipment (included but not limited to, page 28, lines 10-23, page 17, lines 22-33 the registration package is stored before the product server download package is transmitted).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Shin with the invention of LeBourgeois for the benefit of limiting congestion of bandwidth.

Re claim 56, Shin et al did not explicitly disclose wherein part of the modified main stream is available on the addressee equipment prior to transmitting the complementary information to the addressee equipment (included but not limited to, page 28, lines 10-23, page 17, lines 22-33 the registration package is stored before the product server download package is transmitted).

However, LeBourgeois et al disclose wherein part of the modified main stream is available on the addressee equipment prior to transmitting the complementary information to the addressee equipment (included but not limited to, page 28, lines 10-23, page 17, lines 22-33 the registration package is stored before the product server download package is transmitted).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Shin with the invention of LeBourgeois for the benefit of limiting congestion of bandwidth.

Re claim 57, Shin et al did not explicitly disclose wherein the modified main stream and the complementary information are transmitted together in real time.

However, LeBourgeois et al disclose wherein the modified main stream and the complementary information are transmitted together in real time ( included but not limited to, the full encrypted data is sent along with the decrypted data key).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the invention of Shin with the invention of LeBourgeois for the benefit of limiting problem of storage at the user location.

Re claim 58, see rejection on claim 51.

Re claim 60, Shin et al did not explicitly disclose wherein the quantity of information contained in the subset corresponds to a level of scalability determined as a function of a profile of the addressee.

However, LeBourgeois et al disclose wherein the quantity of information



contained in the subset corresponds to a level of scalability determined as a function of a profile of the addressee(usage is determined by payment, page 28, lines 10-25).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce property of scalability in resolution into the system of Shin, as taught by LeBourgeois for the benefit of allowing the system to send contents to the users according to their profile.

Re claim 61, Shin et al did not explicitly disclose wherein information contained in the subset corresponds to a level of scalability determined as a function of a profile of the addressee.

Re claim 61, LeBourgeois et al disclose wherein information contained in the subset corresponds to a level of scalability determined as a function of a profile of the addressee(page 28 lines 10-25 the usage is determined by the payment).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce property of scalability in resolution into the system of Shin, as taught by LeBourgeois for the benefit of allowing the system to send contents to the users according to their profile.

Re claim 62, Shin et al did not disclose wherein the complementary information comprises at least one digital routine suitable for executing a function.

However, LeBourgeois et al disclose wherein the complementary information comprises at least one digital routine suitable for executing a function(page 28 line 18 the decryption key is needed to decrypt the program).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system safer.

Re claim 63, Shin et al disclose wherein functions transmitted to addressees are personalized for each addressee as a function of a session.

However, LeBourgeois et al disclose wherein functions transmitted to addressees are personalized for each addressee as a function of a session (page 21 lines 22-32 the user's ID and information is personalized).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system safer.

Re claim 64, Shin et al did not disclose wherein the complementary information is encrypted for addressees as a function of the session.

However, LeBourgeois et al disclose wherein the complementary information is encrypted for addressees as a function of the session (included but not limited to, page 28, the full encrypted product is sent, along with the payment information and usage parameter according to the user).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system safer.

Re claim 65, Shin et al did not explicitly disclose wherein the complementary information is subdivided into at least two subparts.

However, LeBourgeois et al discloses wherein the complementary information is subdivided into at least two subparts (page 21 lines 22-32 customer's ID, customer's payment information).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system safer.

Re claim 66, Shin et al did not explicitly disclose wherein the subparts are distributed by different media (page 17 lines 18-19 Data can be distributed through any capable network).

However, LeBourgeois et al disclose wherein the subparts are distributed by different media (page 17 lines 18-19 Data can be distributed through any capable network).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system more compatible..

Re claim 67, Shin et al disclose wherein the subparts are distributed by the same medium (see fig2, channel transmission).

Re claim 68, Shin et al disclose wherein all or part of the complementary information is transmitted on a physical vector (see fig.2).

Re claim 69, shin et al did not disclose wherein the complementary information is transmitted on-line.

However, LeBourgeois et al disclose wherein the complementary information is transmitted on-line(fig. 4 step 428, transmit broadcast package via internet).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system more compatible..

Re claim 70, Shin et al did not disclose wherein information contained in the subset is updated as a function of behavior of the addressee during connection to a server or as a function of habits or as a function of data communicated by a third party.

However, LeBourgeois et al disclose wherein information contained in the subset is updated as a function of behavior of the addressee during connection to a server or as a function of habits or as a function of data communicated by a third party(page 21 lines 20-32 The customer's payment information can be updated; that means it can be updated by the billing information system that is third party).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system more compatible..

Re claim 71, Shin et al did not explicitly disclose wherein the quantity of information contained in the subset is updated as a function of behavior of addressee during connection to a server or as a function of habits or as a function of data communicated by a third party.

However, LeBourgeois et al disclose wherein the quantity of information contained in the subset is updated as a function of behavior of addressee during connection to a server or as a function of habits or as a function of data communicated by a third party (page 21 lines 20-32 The customer's payment information can be

updated; that means it can be updated by the billing information system that is third party).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine Shin and LeBourgeois for the benefit of making the system more compatible..

Re claim 72, Shin et al disclose further comprising analog/ digital converting data in a structured format, which is applied to an analog signal(see fig.2, compression portion).

Re claim 79,Shin et al disclose wherein, during reconstruction of the original stream, an indelible and imperceptible trace is inserted into the original stream which trace carries a non-ambiguous identifier(see fig.2, restored host image).

Re claim 80, Shin et al did not explicitly disclose further comprising inserting an indelible and imperceptible trace into the picture after reconstruction and decoding of the original stream, which trace carries a non-ambiguous identifier.

However, LeBourgeois et al disclose further comprising inserting an indelible and imperceptible trace into the picture after reconstruction and decoding of the original stream, which trace carries a non-ambiguous identifier(included but not limited to, see fig.12, element 1208, insert installation ID into decrypted product as installation fingerprint).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Shin with the system of LeBourgeois for the benefit of making the system safer.

Re claim 81, Shin et al disclose wherein the indelible and imperceptible trace can

be detected by software that analyzes reconstituted content (digital image coding and decoding methods disclosed herein can be embodied in and performed using a computer program, paragraph 20).

Re claim 82, Shin et al did not explicitly disclose wherein the non-ambiguous identifier authenticates a user.

However, LeBourgeois et al disclose wherein the non-ambiguous identifier authenticates a user (see fig.1, fingerprinting insertion).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Shin with the system of LeBourgeois for the benefit of making the system safer.

Re claim 83, Shin et al did not explicitly disclose wherein the non-ambiguous identifier authenticates equipment on which a reconstruction algorithm of the original stream was executed.

However, LeBourgeois et al disclose wherein the non-ambiguous identifier authenticates equipment on which a reconstruction algorithm of the original stream was executed (see page 21, customer's installation ID).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Shin with the system of LeBourgeois for the benefit of making the system safer.

Re claim 84, Shin et al explicitly disclose wherein the non-ambiguous identifier and reconstitution of the original stream is executed (see fig.2, restored host image).

Re claim 85, Shin et al disclose wherein a scrambling session and descrambling session are realized under control of a secured server disguised as a selected third party(see fig2, compression portion and decompression portion)

Re claim 86, Shin et al did not explicitly disclose wherein the session is identified by a secured server with a comprising for each session information about session number, identifier of a user or identifier of user equipment and identifier of content constituting subject matter of the session and a date-time group.

However, LeBourgeois et al disclose wherein the session is identified by a secured server with a register (see fig.1, product registration) comprising for each session information about session number, identifier of a user or identifier of user equipment (see page 21, customer's installation ID), and identifier of content constituting subject matter of the session and a date-time group.

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Shin with the system of LeBourgeois for the purpose of making the system safer.

Re claim 87, Shin et al disclose further comprising calculating a digital signature from a reconstituted stream, wherein the inserted trace generates a unique and different signature for each reconstituted stream and the signature is stored on a secured server playing disguised as a selected third party (see fig.2, element 202, original signature storage).

Re claim 88, Shin et al disclose wherein a stream reconstituted by descrambling has the same visual quality as the original stream and exists in a usable form only if it carries said trace(see fig.2 ).

Re claim 89, Shin et al disclose wherein a stream reconstituted by descrambling exists in a usable form only if a digital signature extracted during an authenticity control is identical to a signature stored on a secured server disguised as a selected third party (since the restored signature image is compared with its original image, the quality of the signature image can be very accurately evaluated. Thus, the quality of the restored signature image is almost corresponding to that of the host image, Paragraph 18).

Re claim 90, Shin et al did not disclose applied to an audiovisual digital stream stemming from a proprietary norm or standard.

However, , LeBourgeois et al disclose applied to an audiovisual digital stream stemming from a proprietary norm or standard (see fig.3, author identification information).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Shin with the system of LeBourgeois for the purpose of making the system safer.

Re claim 91,Shin et al did not disclose a server comprising means for broadcasting a modified stream according to claim 47, and a plurality of devices provided with a descrambling circuit wherein the server also comprises means for recording a digital profile of each addressee and means for analyzing the profile of each of the addressees which means controls the nature of complementary information transmitted to each of the addressees.

However, LeBourgeois et al disclose a server (see fig.1, package storage) comprising means for broadcasting a modified stream according to claim 47, and a plurality of devices provided with a descrambling circuit(page 28 line 18 The decryption key is needed to decrypt the program; that means there are descrambling circuits), wherein the server also comprises means for recording a digital profile of each



addressee(included but not limited to, see fig. 2, the server has a HDD where the data is stored and transmitted ) and means for analyzing the profile of each of the addressees(page 21 lines 22-32 customer's ID, customer's payment information) of a modified stream(usage is determined by payment, page 28, lines 10-25), which means controls the nature of complementary information transmitted to each of the addressees.

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Shin with the system of LeBourgeois for the purpose of making the system safer.

Re claim 92, Shin et al did not explicitly disclose wherein a level (quality, quantity, type) of the complementary information is determined for each addressee as a function of the state of a profile at a moment of viewing a main stream.

However, LeBourgeois et al disclose wherein a level (quality, quantity, type) of the complementary information is determined for each addressee as a function of the state of a profile at a moment of viewing a main stream(included but not limited to, page 18, free usage parameters; that means type).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Shin with the system of LeBourgeois for the purpose of allowing user to receive contents with respect to their profile.

Claims 51-54,59, 73-78, are rejected under 35 U.S.C. 103(a) as being unpatentable over LeBourgeois et al in view of Chebil et al, US No. 6760481.

Re claim 51, Shin et al did not explicitly disclose wherein the original stream has a property of scalability in resolution.

However, Chebil et al disclose wherein the original stream has a property of scalability in resolution (included but not limited to, this means that during encoding and decoding the quality of the image may be gradually enhanced by increasing the number of bits per pixel used in its representation; progressivity in resolution, col.1, lines 55-60).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce property of scalability in resolution into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of limiting error in transmitting data.

Re claim 52, Shin et al did not explicitly disclose wherein the original stream has a property of spatial scalability.

However, Chebil et al disclose wherein the original stream has a property of spatial scalability (This means that the spatial resolution of the image may be progressively enhanced during encoding and decoding, col.1, lines 60-62).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce property of spatial scalability into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of limiting error in transmitting data.

Re claim 53, Shin et al did not explicitly disclose wherein the original stream has a property of qualitative scalability.

However, Chebil et al disclose wherein the original stream has a property of qualitative scalability(The solution according to the invention also provides progressivity in quality and resolution, col.3, lines 43-44).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce a property of qualitative scalability into the system of LeBourgeois, as taught by Chebil, for the benefit of limiting error in transmitting data.

Re claim 54, Shin et al did not explicitly disclose wherein the original stream has a property of spectral scalability.

In an analogous art, Chebil et al disclose wherein the original stream has a property of spectral scalability (where the image is represented by pixel values ,e.g. luminance and chrominance, to the spatial frequency domain, col.1, lines 27-29).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce a property of spectral scalability into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of allow the system to use the spatial frequency domain.

Re claim 59, Shin et al did not explicitly disclose wherein determination of the subset of the complementary information is based on properties of granular scalability of the complementary information.

However, Chebil et al disclose wherein determination of the subset of the complementary information is based on properties of granular scalability of the complementary information (included but not limited to, this means that during encoding and decoding the quality of the image may be gradually enhanced by increasing the number of bits per pixel used in its representation; progressivity in resolution, col.1, lines 55-60).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce property of scalability in resolution into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of limiting error.

Re claim 73, Shin et al did not explicitly disclose further comprising transcoding a digital stream from any format to a format with scalability properties.

In an analogous art, Chebil et al disclose further comprising transcoding a digital stream from any format to a format with scalability properties (solution according to the invention also provides progressivity in quality and resolution, Col.3, lines 43-44).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce further comprising transcoding a digital stream from any format to a format with scalability properties into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of making the system more compatible.

Re claim 74, Shin et al did not explicitly disclose wherein fixed pictures constitute a succession of pictures fixed in time.

However, Chebil et al disclose wherein fixed pictures constitute a succession of pictures fixed in time (Each block is then coded by dividing it into four quadrants. Each quadrant is coded again by dividing it into 4 quadrants, and so on till no further division is possible, col.2, lines 49-51; that means the fixed represents a succession of block of pictures).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce wherein fixed pictures constitute a succession of pictures fixed in time into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of limiting error in transmitting data.

Re claim 75, Shin et al did not explicitly disclose wherein modification of the data sequences is different for at least two pictures of a succession of pictures.

In an analogous art, Chebil et al wherein modification of the data sequences is different for at least two pictures of a succession of pictures(quantization is performed successively and independently for each band of the transformed data, col.2, lines 38-40; that means modification of data is different for every single picture).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce wherein modification of the data sequences is different for at least two pictures of a succession of pictures into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of limiting error in transmitting data.

Re claim 76, Shin et al did not explicitly disclose wherein modification of data sequences of a picture of a succession of pictures includes modification of the data sequences of preceding pictures in temporal order of the succession based on properties of spatial and qualitative scalability of transformations in wavelets.

In an analogous art, Chebil et al disclose wherein modification of data sequences of a picture of a succession of pictures includes modification of the data sequences of preceding pictures in temporal order of the succession based on properties of spatial(This means that the spatial resolution of the image may be progressively enhanced during encoding and decoding, col.1, lines 60-62) and qualitative scalability(The solution according to the invention also provides progressivity in quality and resolution, col.3, lines 43-44)of transformations in wavelets (see fig.2, element 202, wavelet transform).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce wherein modification of data sequences of a picture of a succession of pictures includes modification of the data sequences of preceding pictures in temporal order of the succession based on properties of spatial and

qualitative scalability of transformations into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of making the system more efficient.

Re claim 77, Shin et al did not explicitly disclose wherein granular scalability of the complementary information is based on qualitative, spatial and in-resolution scalabilities of streams stemming from a transformation in wavelets of the pictures.

In an analogous art, Chebil et al disclose wherein granular scalability of the complementary information is based on qualitative (solution according to the invention also provides progressivity in quality and resolution, Col.3, lines 43-44), spatial and in-resolution scalabilities (where the image is represented by pixel values ,e.g. luminance and chrominance, to the spatial frequency domain, col.1, lines 27-29) of streams stemming from a transformation in wavelets of the pictures (see fig.2, element 202, wavelet transform).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce wherein granular scalability of the complementary information is based on qualitative, spatial and in-resolution scalabilities of streams stemming from a transformation in wavelets of the pictures into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of limiting error in transmitting data.

Re claim 78, Shin et al did not explicitly disclose which is performed without loss of picture quality.

In an analogous art, Chebil et al disclose which is performed without loss of picture quality (during encoding and decoding the quality of the image may be gradually enhanced by increasing the number of bits per pixel used in its representation; progressivity in resolution. This means that the spatial resolution of the image may be progressively enhanced during encoding and decoding; low complexity of

implementation; resilience to errors that may occur during transmission, col.1, lines 55-62).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce which is performed without loss of picture quality into the system of Shin in view of LeBourgeois, as taught by Chebil, for the benefit of limiting error in transmitting data.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcy whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST. If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reached on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, dial 800-786-9199(IN USA OR CANADA) or 571-272-1000.

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